

29386

S/202/61/000/005/002/004
A006/A101

Peculiarity of electrical properties ...

the effective electron mass. Maxima on $R(T)$ curves in n and p type specimens are caused by the complex structure of energy zones - the excitation of "fast" electrons in n type specimens and "fast" holes in p-type specimens at high temperatures. The absence of changes in the sign of R in p type specimens is connected with the fact that the mobility of fast holes is greater than that of electrons. The authors suggest a schematic diagram of energy levels of solid solutions electrons with excess of InAs. (Fig. 7) The system shows a narrower forbidden band ΔE with increasing $CdSnAs_2$ concentration in the solid solutions, since with an increase of this concentration the bottom of the conductivity zone is lowered, but the top of the valence zone does not change. This decrease of ΔE follows also from experimental data shown in Fig. 6. The authors thank N. A. Goryunov, D. N. Nasledov and A. I. Gubanov for their participation in discussing the present article and for their valuable observations. There are 1 table, 7 figures and 12 references: 5 Soviet-bloc and 7 non-Soviet-bloc. The reference to the most recent English-language publication reads as follows: Ehrenreich, H. - Phys. Rev. 1961.

ASSOCIATION: Fiziko-tekhnicheskii institut im. A.F.Ioffe Akademii nauk SSSR
(Institute of Physical Engineering imeni A. F. Ioffe, USSR Academy
of Sciences)

SUBMITTED: April 4, 1961

Card 3/5

NRAN'YAN, A. A.

Third-order elastic constants of NaCl type crystals. Fiz. tver.
tela 5 no.1:177-186 Ja '63. (MIRA 16:1)

1. Fiziko-tekhnicheskiy institut imeni A. F. Ioffe AN SSSR,
Leningrad.

(Salt—Elastic properties)
(Crystallography, Mathematical)

L 18577-63

EMP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3001290

S/0181/63/005/006/1678/1681

AUTHORS: Gubanov, A. I.; Nran'yan, A. A.

TITLE: Dependence of the frequency spectrum of a simple cubic lattice on deformation

SOURCE: Fizika tverdogo tela, v. 5, no. 6, 1963, 1678-1681

TOPIC TAGS: frequency spectrum, cubic lattice, tensional deformation, Grüneisen approximation, frequency distribution

ABSTRACT: The authors undertook this study because of disagreement between accepted theory of G. Leibfreid and H. Hahn (Z. Physik, 150, 497, 1958), and experimental data. They have computed the change in distribution function of frequency of a simple cubic lattice subjected to small deforming tension along the [100] direction. They found that for deformation along one of the cubic axes of a crystal the maximums on the frequency-distribution curve are smoothed out and shifted toward the lower frequencies. The upper maximum is greater than the lower, and the region between maximums shows a general increase in values of frequency distribution toward the higher frequencies. In their

Card 1/2

L 18577-63

ACCESSION NR: AP3001290

computations the authors found that the Grnisen relationship was not realized.
Orig. art. has: 2 figures, 1 table, and 11 formulas.

SUBMITTED: 05Feb63

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: PH

NO REF SOV: 000

OTHER: 003

Card 2/2

L 18029-63 EWT(1)/EWP(q)/EWT(m)/BDS AFFTC/ASD/ESD-3/IJP(C) JD
 ACCESSION NR: AP3003881 S/0181/63/005/007/1865/1868

AUTHOR: Nran'yan, A. A.

TITLE: Elastic constants of third order in crystals of the type CsCl

SOURCE: Fizika tverdogo tela, v. 5, no. 7, 1963, 1865-1868

TOPIC TAGS: elastic constant, crystal, thirdorder constants Cs, Cl, Br, I, Na, temperature dependence, cesium, chlorine, bromine, iodine, sodium

ABSTRACT: Calculations in this paper are of the kind made previously by the author (FTT, 5, 177, 1963) for NaCl and are made to show the dependence of elastic constants on temperature. In his analysis the author assumes that the temperature dependence of third-order constants is linear, like ordinary elastic constants. As a result of his computations, he concludes that his previous view that C_{111} and C_{112} should be negative and C_{123} positive for all cubic crystals can not be maintained, since all the third-order constants are negative in CsCl . C_{123} may thus be either positive or negative, depending on the crystal. All present data indicate that C_{111} and C_{112} will be negative in cubic crystals, however. In CsCl , α_{111} and α_{456} are positive, in contrast to NaCl , but all the

Card 1/2

L 18029-63

ACCESSION NR: AP3003881

remaining temperature coefficients for both types agree. The elastic constants in the CsCl crystals are but weakly dependent on temperature. Orig. art. has: 2 tables and 18 formulas.

ASSOCIATION: Fiziko-tekhnicheskii institut im. A. F. Ioffe AN SSSR, Leningrad
(Physical and Technical Institute, Academy of Sciences, SSSR)

SUBMITTED: 05Feb63

DATE ACQ: 15Aug63

ENCL: 00

SUB CODE: PH

NO REF SOV: 001

OTHER: 001

Card 2/2

BR

ACCESSION NR: AP4019839

S/0181/64/006/003/0785/0789

AUTHOR: Nran'yan, A. A.

TITLE: The Cauchy relations for third order elastic constants

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 785-789

TOPIC TAGS: crystal symmetry, Cauchy relation, elastic constant, isotropism

ABSTRACT: This is a continuation of the author's previous work (FTT, 5, 1865, 1963) on conditions of isotropy when a crystal is subjected to hydrostatic pressure. For a crystal of any symmetry to be isotropic, both second- and third-order elastic constants must satisfy definite relations. Cauchy relations may be used for this purpose. The author's analyses show that there are two types of cubic crystals: one with fourfold symmetry axes, the other without such axes. Second-order elastic constants are the same for both, but third-order constants differ. Crystals with fourfold symmetry axes have six third-order elastic constants, the other group eight. The latter has five isotropic relations and four Cauchy relations. Seven of these nine relations are independent. In hexagonal crystals with ten third-order elastic relations there are eight

Card 1/2

ACCESSION NR: AP4019839

isotropic relations and five Cauchy relations. For isotropic substances there are two Cauchy relations. In all the cases examined, in addition to isotropic material, the number of Cauchy relations is precisely equal to one-half the total number of elastic constants. Orig. art. has; 6 formulas.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad
(Physicotechnical Institute AN SSSR)

SUBMITTED: 09Sep63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: SS

NO REF SOV: 002

OTHER: 005

Card: 2/2

S/0181/64/006/004/1213/1219

ACCESSION NR: AP4028454

AUTHOR: Nran'yan, A. A.

TITLE: Theory of ultimate strain in cubic crystals

SOURCE: Fizika tverdogo tela, v. 6, no. 4, 1964, 1213-1219

TOPIC TAGS: ultimate strain, crystal deformation, cubic crystal, elastic constant

ABSTRACT: The author considers both the Euler and the Lagrange systems for computing ultimate strain in crystals. Though the two are entirely equivalent, one may be better than the other under specific conditions. It is shown that there are two kinds of third-order elastic constants. The author finds the following relation to hold for third- and second-order elastic constants:

$$(C_{44}^0)' - (C_{12}^0)' = \frac{1}{2}(2C_{11} + 4C_{12})' = (2C_{11} + 4C_{12})' = -2p \cdot$$

This formula is similar to the Cauchy relations $(C_{44}^0)' = (C_{12}^0)'$ for normal elastic constants at a hydrostatic pressure of p . From the formula above, it follows that the pressure of the difference $(C_{44}^0)' - (C_{12}^0)'$ is the same for all cubic crystals.

At 10 000 atm, $-2p$ is approximately $0.2 \cdot 10^{10}$ erg/cm³. For crystals of KCl, this

Card 1/2

ACCESSION NR: AP4028454

value is on the order of 30% of C_{44}^0 . For any stress differing from hydrostatic pressure, the nature of isotropy in the crystal generally changes, since the symmetry of the crystal changes and the number of elastic constants $C'_{\alpha\beta}$ increases. Orig. art. has: 5 tables and 19 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad
(Physicotechnical Institute AN SSSR)

SUBMITTED: 09Aug63

SUB CODE: SS

NO REF SOV: 002

ENCL: 00

OTHER: 005

Card 2/2

ACCESSION NR: AP4041698

S/0181/64/006/007/1996/2002

AUTHORS: Nikanorov, S. P.; Nran'yan, A. A.; Stepanov, A. V.

TITLE: On the theory of the temperature dependence of the elastic constants of alkali-halide crystals

SOURCE: Fizika tverdogo tela, v. 6, no. 7, 1964, 1996-2002

TOPIC TAGS: single crystal, alkali halide, crystal anisotropy, elastic modulus, lattice constant

ABSTRACT: This is a continuation of a series of earlier studies (ZhETF v. 29, 669, 1955 and v. 37, 1814, 1959; FTT v. 3, 2872 and 3551, 1961; v. 4, 570 and 2576, 1962; v. 5, 619, 1963) of the effect of temperature on the elastic constants of single-crystal LiF, NaF, NaCl, KCl, KBr, KI, CsBr, and CsI, from room temperature to nearly the melting point. In this article the results are compared with the theory of Leibfried and Hahn (Zs. Phys. v. 150, 497, 1958) and

Card

1/2

ACCESSION NR: AP4041698

are found to deviate from it. In particular, the theory yields isothermal elastic constants, while the experiments yield adiabatic constants. The difference between these constants increases with increasing temperature, but is comparable with the measurement errors. Ideas are advanced concerning the causes of the discrepancy. Since the theory agrees with experiment when the contribution of the oscillation energy to the elastic constants is small, and vice versa, it is suggested that insufficient account was taken by the authors of the theory of the temperature dependence of the elastic constants. "The author thanks Professor A. I. Gubanov for a discussion of several problems and for valuable remarks." Orig. art. has: 3 figures, 3 formulas, and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR
(Physicotechnical Institute AN SSSR)

SUBMITTED: 16Jan64

SUB CODE: SS

NR REF SOV: 007

ENCL: 00

OTHER: 007

Cdr

2/2

ACCESSION NR: AP4041718

S/0181/64/006/007/2124/2127

AUTHOR: Nran'yan, A. A.

TITLE: Elastic constants of higher orders in solids

SOURCE: Fizika tverdogo tela, v. 6, no. 7, 1964, 2124-2127

TOPIC TAGS: deformation mechanism, elastic deformation, elasticity,
crystal symmetry, cubic crystal

ABSTRACT: In view of the numerous published indications that the generalized Hooke's law cannot be regarded as valid for finite (rather than infinitesimal) strain, since it is not known how the elastic energy is expressed in such a case in terms of the deformation coefficients and a finite number of constants, the author derives a scheme of fourth-order elastic constants for the general case of a crystal with triclinic symmetry. A system of fifth-order constants is also obtained for the particular case of symmetrical

Card 1/2

ACCESSION NR: AP4041718

load. This is a continuation of an earlier paper on third-order constants (FTT v. 5, 177, 1963). A formula is derived for the determination of the number of elastic constants of any order for a triclinic crystal. The elastic constants are of order n treated as contravariant tensors of rank $2n$, with the symmetry of the deformation components relative to permutation of their indices facilitating the determination of the elastic-constant scheme. Elastic constants of higher orders are obtained for an isotropic body. It is shown that for such a body there are only 4 independent elastic constants of fourth order, 7 of sixth order, and 8 of seventh order. Orig. art. has: 12 formulas.

ASSOCIATION: Fiziko-tehnicheskii institut im. A. F. Ioffe AN SSSR
(Physicotechnical Institute, AN SSSR)

SUBMITTED: 03Dec63

SUB CODE: 88

NR REF SOV: 003

ENCL: 00

OTHER: 003

Card 2/2

L 34892-65 EWT(d)/EWT(1)/EWT(m)/EWT(w)/EWA(d)/T/EEC(b)-2 IJP(c) EM
 ACCESSION NR: AP5005265 8/0181/65/007/002/0345/0350

AUTHOR: Nran'yan, A. A.

TITLE: Adiabatic and isothermal finite elastic deformations of a solid

SOURCE: Fizika tverdogo tela, v. 7, no. 2, 1965, 345-350

TOPIC TAGS: high pressure research, elastic constant, adiabatic deformation, isothermal deformation, cubic crystal, sodium chloride, potassium chloride

ABSTRACT: The article deals with the behavior of a solid under high pressure, in which a finite deformation is produced in two stages, the initial deformation being produced isothermally, followed by adiabatic deformation. The free energy per unit volume of the undeformed body is expanded in powers of the isothermal and adiabatic strain components. The second-order adiabatic elastic constants are then evaluated as functions of the isothermal initial stress. A connection is established between the third-order adiabatic and isothermal elastic constants. The connection between the expansion coefficients and the experimental quantities is analyzed, and the relations between the independent elastic constants for a cubic crystal are written

Card 1/2

L 34892-65

ACCESSION NR: AP5005265

out. Numerical results are presented for KCl and NaCl crystals. It is concluded on the basis of the experimental data that the difference between the coefficients governing the pressure dependence of the elastic constants in isothermal-adiabatic deformation differs little from that of pure isothermal deformation. Orig. art. has: 21 formulas and 2 tables.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad
(Physicotechnical Institute, AN SSSR)

SUBMITTED: 13Apr64

ENCL: 00

SUB CODE: 88, ME

NR REF SOV: 005

OTHER: 005

Card 2/2

L 12928-65 EWT(1)/EWT(m)/T/EWP(t)/EEC(b)-2/EWP(b) IJP(c)/AS(mp)-2/ASD(a)-5

JD

ACCESSION NR: AP4046621

S/0181/64/006/010/3070/3072

AUTHOR: Nran'yan, A. A.

TITLE: Strain dependence of the vibration frequencies of a simple cubic lattice ¹³

SOURCE: Fizika tverdogo tela, v. 6, no. 10, 1964, 3070-3072

TOPIC TAGS: cubic crystal lattice, crystal lattice vibration, crystal deformation ¹⁸

ABSTRACT: The method used by the author earlier (with A. I. Gubanov, FTT v. 5, 1678, 1963) is used to calculate the dependence of the vibration frequencies on the wave vector and the frequency-distribution spectrum of a simple cubic lattice in the following three cases of deformation: a) compression along the [100] axis, b) compression and tension along the [101] axis, c) compression and tension along the [111] axis. The results show that in the nearest-neighbor ap-

Card 1/2

L 12928-65

ACCESSION NR: AP4046621

proximation only one mode of the vibration frequencies changes in the case of compression or tension along the [100] axis, two branches change in equal fashion in the case of the [101] axis, and three branches in the case of [111] axis. The frequency distribution of one of the modes is tabulated and the variation of the maxima under different stresses is briefly discussed. Orig. art. has: 12 formulas and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR
(Physicotechnical Institute AN SSSR)

SUBMITTED: 27Apr64

ENCL: 00

SUB CODE: SS

NR REF SOV: 001

OTHER: 001

Card 2/2

NIKANOROV, S.P.; NRAN'YAN, A.A.; STEPANOV, A.V.

Theory of the temperature dependence of the elastic constants of crystals of alkali metal halides. Fiz. tver. tela 6 no.7: 90-2002 J1 '64.
(MIRA 17:10)

1. Fiziko-tekhnicheskii Institut imeni A.F.Ioffe, Leningrad.

NRAN'YAN, A.A.

Elastic constants of higher order in solids. Fiz. tver. vol. 6 no. 7:
2124-2127 J1 '64. (MIRA 17:10)

1. Fiziko-tekhnicheskiy institut imeni A.F. Ioffe AN SSSR, Leningrad.

NRAN'YAN, A.A.

Dependence of the oscillation frequency of a simple cubic
lattice on deformation. Fiz. tver. tela 6 no.10:3070-3072
O '64. (MIRA 17:12)

1. Fiziko tekhnicheskii institut im. A.F. Ioffe AN SSSR.

NRAN'YAN, A.A.

Adiabatic and isothermal finite elastic deformations of a solid
body. Fiz. tver. tela 7 no.2:345-350 F '65.

(MIRA 18:8)

1. Fiziko-tekhnicheskii institut Imeni Lofte AN SSSR, Leningrad.

L 48114-65 EWT(1)/EWT(m)/T/EW.(t)/EEC(b)-2/EWP(b) P1-4 IJP(c) JD/JG/GG

ACCESSION NR: AP5006907

8/0181/65/007/003/0917/0919

AUTHOR: Nran'yan, A. A.

TITLE: Third-order elastic constants of alkali halide crystals 21 20

SOURCE: Fizika tverdogo tela, v. 7, no. 3, 1965, 917-919

TOPIC TAGS: alkali halide crystal, elastic constant, Coulomb interaction, temperature coefficient

ABSTRACT: In an earlier paper (FTT v. 5, 177, 1963), the author calculated the elastic constants of third order of crystals of the NaCl type. In the present article a more accurate account is taken of the contribution made to the elastic constants by the Coulomb interaction of the ions. The newly calculated results are compared with those of the early paper and with those obtained by various other authors using different methods. A more accurate account of the Coulomb interaction leads not only to new values of the constants but also to new temperature coefficients for these constants, which are increased in amounts ranging from 1--2% to 20--30%, depending on the crystallographic direction. The experimental data

Card 1/2

L 48114-65

ACCESSION NR: AP5006907

agree more closely with the new results in the case of KCl and are in somewhat worse agreement in the case of NaCl. On the whole, the new results are in satisfactory agreement with experiment. Orig. art. has: 3 tables.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad
(Physicotechnical Institute, AN SSSR)

SUBMITTED: 29Sep64

ENCL: 00

SUB CODE: SS

HR REF SOV: 001

OTHER: 005

sh
Card 2/2

NRAN'YAN, A.A.

Elastic constants in the theory of finite deformations.

Kristallografiia 10 no.3:357-361 My-Je '65.

(MIRA 18:7)

1. Leningradskiy fiziko-tekhnicheskii institut.

MSAK IN, T.N.; POMERANETS, A.A.

Increasing the variety and improving the quality of canned
vegetables and fruits at enterprises of the R.S.F.S.R. Kons.1
ov.prom. 15 no.10:1-4 0 '60. (MIRA 13:10)

1. Gosplan RSFSR.

(Russia—Canning industry)

~~NSEIM~~ ~~Oskar~~: DLUZNIIEWSKA, Krystyna; GORCZYNSKA, Krystyna

Air pollution in Krakow. Przegl. lek., Krakow 10 no.11:308-311
1954.

1. Z Zakladu Higieny Akademii Medycznej w Krakowie. Kierownik:
doc. dr B.Gastol.

(AIR POLLUTION,
in cities in Poland)

AGBALYAN, S.G.; NSHANYAN, A.O.; NERSESYAN, L.A.

Using nitrilium salts in the synthesis of unsaturated compounds of the 3,4-dihydroisoquinoline. Izv. AN Arm. SSR. Khim. nauki 15 no. 4: 399-403 '62. (MIRA 15:11)

1. Institut organicheskoy khimii AN Armyanskoy SSR.
(Isoquinoline)
(Nitrilium compounds)

AGBALYAN, S.G.; NSHANYAN, A.O.; NERSESYNA, L.A.

Use of nitrilium salts in the synthesis of heterocyclic amino acids. Report No.1: Derivatives of 3,4-dihydroxy-1-isoquinolins-acetic acid. Izv. AN Arm.SSR. Khim nauki 16 no.1:77-85 '63
(MIRA 17:8)

1. Institut organicheskiy khimii AN Armyanskoy SSR.

AGBALYAN, S.G.; YESAYAN, G.T.; MAGAKYAN, P.O.; NSHANYAN, A.O.

Sulfoacid esters. Part 13: Synthesis of some derivatives of
cyclohexanesulfonic acid. Izv.AN Arm.SSR.Khim.nauki 17 no.1:69-74
'64. (MIRA 17:4)

1. Institut organicheskoy khimii AN Armyanskoy SSR.

AGBALYAN, S.G.; NERSESYAN, L.A.; NSHANYAN, A.O.

Use of nitrium salts in the synthesis of heterocyclic amino acids. Part 3: Synthesis of derivatives of 3-4-dihydroisoquinoline-1-(1'-alkyl)-acetic acids. Izv. AN Arm.SSR. Khim.nauki 18 no.1:83-87 '65.

(MIRA 18:5)

1. Institut organicheskoy khimii AN ArmSSR.

NSHANYAN, S.N.

Some advantages of seeding sugar beets in double rows [in Armenian with summary in Russian]. Izv. AN Arm. SSR. Biol. i sel'khoz. nauki. 5 no.3:89-94 '52. (MLRA 9:8)

1. Sekretar' Spitakskogo rayokoma KP(b)A.
(ARMENIA--SUGAR BEETS)

NSIŁOWSKI, Wladyslaw

Critique of the use of sobriety tests in courts. Polski tygod.lek
15 no.21:806-809 23 Ky '60.

1. Z Zakladu Medycyny Sadowej Sl. A.M. w Zabrze; kierownik: dr.
med. T.Praglowski.

(ALCOHOLIC INTOXICATION jurisprudence)

NSMELOV, A.V.

Thermodynamics of a binary system of liquids. Trudy KHITI
no.15:82-88 '50. [publ. '51] (MIRA 12:12)
(Liquids) (Thermodynamics)

NUBARYAN, F.M.

Effect of isolated self-pollination of tobacco flowers on the
progeny. Izv.AN Arm.SSR,Biol.i sel'khoz.nauki. 2 no.1:87-91 '49.
(MLBA 9:8)
1. Institut genetiki i selektsii rasteniy Akademii nauk Armyanskoy
SSR.

(TOBACCO BREEDING)

NUBARYAN, F.M.

Effect of the aging of pollen on the viability of tobacco seeds
[in Armenian with summary in Russian]. Izv.AN Arm.SSR.Biol.i
sel'khoz.nauki 7 no.7:33-39 J1 '54. (MLBA 9:8)
(Tobacco breeding)(Pollen)

BARSEGYAN, S.G.; GENOSKYAN, Ye.A.; NUBARYAN, F.M.

Heterosis in tobacco due to intervarietal hybridization [in Armenian
with summary in Russian]. Izv.AN Arm.SSR Biol.i sel'khoz.nauki 9
no.7:37-48 J1 '56. (MLRA 9:9)
(Tobacco breeding) (Heterosis)

USSR/Cultivated Plants. Commercial. Oil-Bearing. Sugars.

M

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20445.

Author : ~~Mubaryan~~

Inst : Not given.

Title : Pollination's Action on the Fecundation and Viability of
Succeeding Generations of Tobacco Seen at Different Stages
of Style Growth. (Vliyaniye opyleniya na oplodotvoreniye
i zhiznennost' potomstva tabaka pri razlichnom vozrastnom
sostoyanii ryl'tsa).

Orig Pub: Izv. AN ArmSSR, biol. i s.-kh. n., 1957, 10, No 2, 67-73.

Abstract: The experiments were conducted with the varieties Samsun
27, Trapezund 1272, Trapezund 1268 and Ostrolist 2747.
During the florescent period, a group of 70 blossoms were
castrated and daily through 7 days ten blossoms were pol-
linated with pollen of the same variety. The blossoms

Card : 1/2

CHAYLAKHYAN, M.Kh.; VARSEGYAN, S.G.; NUBARYAN, F.M.; KOCHANKOV, V.G.

Effect of gibberelin on the growth and yield of tobacco in
connection with the dates of treatment. Izv. AN Arm. SSR.
Biol. nauki 15 no.2:3-11 '62. (MIRA 15:3)

1. Institut semledeliya Ministerstva sel'skogo khozyaystva
Armenyanskoy SSR i Institut fiziologii rasteniy imeni K.A.
Timiryazeva AN SSSR.

(TOBACCO)
(GIBBERELLINS)

TER-GAZARYAN, E.L. [deceased]; BERLIN, A.A.; MACHINSKAYA, R.Ye.; NUBARYAN,
T.K.; OGANESYAN, Sh.S.; SAMUSEVA, I.S.

Oxidation of natural gasoline in the liquid phase under pressure.
Neftekhimiia 3 no.6:886-891 N-D '63. (MIRA 17:3)

1. Nauchno-issledovatel'skiy i proyektnyy institut khimii, Korovakan.

EXCERPTA MEDICA Sec 2 Vol 12/7 Physiology July 59

3053. METHODS OF EXPERIMENTAL INVESTIGATION OF DIFFERENT SYSTEMS OF VISION (Russian text) - Nuberg N.D. - AKADEMIYA NAUK SSSR 1958, 3/1 (46-51)

This chiefly theoretical discussion begins by explaining that 'seeing' means the result of the reaction of the visual analyzor to light. It is pointed out that, in both man and animals, the process of seeing involves a discrimination which takes place differently in different forms of life. The capacity of the visual analyzor, as assessed from the minimum of discrimination, is discussed. The recognition of figures is considered and it is pointed out that processes of habit formation are of importance here and that these can in some circumstances lead to mistakes. It is emphasized that the fundamental fact of discriminatory processes must be taken into consideration in the solution of all problems of sensory physiology.

Von Skramlik - Berlin (11, 12)

BALNUS, P., prof.; CARASIEVICI, V., dr.; POPOVICI, N., dr.; ^{NU}NUBERT, Gr.,
dr.; ADRIAN, V., dr.; RUGINA, V., dr.; BRAIER, R., dr.

Study of pulmonary ventilation disorders in spondylitis ankylo-
poietica. Modifying action of balneophysiotherapy. Med. intern.,
Bucur 12 no.12:1867-1872 D '60.

(BALNEOLOGY) (SPONDYLITIS, ANKYLOSING therapy)
(RESPIRATION) (EXERCISE THERAPY)

BALMUS, P., conf.; MAGERU, V., dr.; CARASIEVICI, V., dr.; POPOVICI, N., dr.;
SILION, I., dr.; NUBERT, Gr., dr.; BRAIER, R., dr.; SIMIONESCU, R.,
sora medicala

Study of the rheumatogenic factors and the aspect of the spinal
column in the textile industry. Med. intern. 14 no.7:819-825 J1
'62.

(SPINAL DISEASES) (ARTHRITIS, RHEUMATOID) (INDUSTRIAL MEDICINE)
(OCCUPATIONAL DISEASES) (PNEUMOCONIOSIS)

BALMUS, P., conf.; MAGERU, V., dr.; NUBERT, Gr., dr.; CARASIEVICI, V., dr.;
RUGINA, V., dr.; POPOVICI, N., dr.; ANDRIAN, V., dr.; BRAIER, R.,
dr.; MOISE, B., dr.; POLAK, S., dr.

Clinical and biochemical studies with radioactive phosphorus in
generalized articular chondrocalcinosis. Med. intern. 14 no.8:
985-991 Ag '62.

1. Lucrare efectuata in Clinical balneologica I.M.F. Iasi (director
conf. P. Balmus).

(JOINT DISEASES)	(CARTILAGE)	(CALCINOSIS)
(PHOSPHORUS ISOTOPES)	(PHOSPHORUS METABOLISM DISORDERS)	

STOIEA, I.; NUBERT, I.; COCURUZ, L.; CLAIANU, I.

Calimetric determinations during childbirth. Romanian med. rev.
19 no.2255-62 Apr-Jun '66.

SURNAME, Given Name

NUBERT, I.I.

Country: Rumania

Academic Degrees: [not given]

Affiliation: Obstetrics and Gynecology Clinic, Medical Institute (Institutul de Medicina, Clinica de Obstetrica si Ginecologie), Timisoara.

Source: Timisoara, Timisoara Medicala, Vol VI, No 1, Jan-Jun 1961, pp 1-8.

Data: "Aspects of the Physiology and Physiopathology of the Suprarenal Cortex During Pregnancy."

Authors:

NUBERT, I.I.
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670 981643

Nubert, I. I.

RUMANIA

NUBERT, I. I., RADULESCU, S.

Timisoara, Timisoara Medicala, Vol VII, No 2, Jul-Dec 62, pp 47-55.

"Observations on the hypertensive dispregnancy syndrome."

TIRLEA, I., prof.; MASCA-CIOBANU, L., dr.; MORATH, C., dr.; STANCIU, M., dr.;
STAMBULIU, S., NUBERT, S., dr.

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polyarthritis in children. Med. intern., Bucur 12 no.9:1375-1384
S '60.

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NUCIG, A.

Yugoslavia (430)

Technology

Hygiene in the food industry. p. 435, Nova Proizvodnja, Vol. 2, no. 6,
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Yugoslavia (430)

Technology

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NUCIC, A.

Professional training of qualified workers required by the chemical industry.
p. 1559

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SO: EEAL, Vol 5, No. 7, July 1956

NUCIC, Albert, inz.

Professor Engineer Friderik Gerl, a sexagenarian. Nova proizv
12 no.2/3:89 Mr '61.

NUCIC, C.

Yugoslavia (430)

Technology

Secondary school trained chemists. p. 194, Nova Proizvodnja, Vol. 2, no. 3, May 1952.

East European Accessions List. Library of Congress, Vol. 2, no. 3, March 1953.
UNCLASSIFIED.

RUMANIA/Organic Chemistry - Naturally Occurring Substances
and Their Synthetic Analogs.

3.

Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 28950

Author : Bodea, C., Nucșara, E., Mecca, E.

Inst : -

Title : The Auto-Oxidation of Carotenoids. II. Mechanism of the
Formation of Epoxides and of Furanoxides of Carotene and
of Xanthophylls During the Auto-Oxidation of α - and
 β -Carotenes.

Orig Pub : Studii si cercatari chim, 5, No 1, 17-25 (1957) (in
Rumanian with summaries in French and Russian)

Abstract : Among the products of the light-catalyzed autooxidation
of β -carotene (β -I) in acetone acidified with 0.01
N H_2SO_4 , the following have been identified: mono- and
diepoxides (EP) and monofuranoxides [TN: furanosides?]
(FU) of I, cryptoxanthine and its mono-EP and mono-FU,
and 'zeaxsantin' and its mono-FU.

Card 1/2

25

Nude, L. A.

137-58-2-4391

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 299 (USSR)

AUTHORS: Likina, A. F., Borscheva, T. A., Nude, L. A.

TITLE: An Electrochemical Method for the Study of the Phase Composition of Austenitic Steels (Elektrokhimicheskiy metod izucheniya fazovogo sostava austenitnykh staley)

PERIODICAL: V sb.: Fiz. -khim. issled. austenitn. splavov. Moscow, Mashgiz, 1957, pp 3-11

ABSTRACT: A method of differential analysis of the carbonitride phases in multiple-alloy austenitic steels has been worked out on austenitic Cr-Ni steels 19-9 (both with and without an N₂ content). The carbide-forming elements were: Nb, W, Ti, Mo, and Cr. The surplus phases were separated out by electrolytic dissolution. The electrolyte consisted of 300 grams of NaCl, 50 grams of Na citrate, and 50 cc of concentrated HCl per liter of H₂O. The anode was the specimen bar being investigated, which was 50 mm long, 15 mm in diameter, and was contained in a small collector bag; the cathode was a cylinder made of Cu. The D_a was 1 amp/cm². The dissolution process lasted 5-10 minutes.

Card 1/2

The electrolytic precipitate was washed with a mixture of 5%

137-58-2-4391

An Electrochemical Method for (cont.)

HCl and 1% citric acid, then by a 5% alkali solution and H₂O. After the NH₄OH which had formed during decomposition of the nitrides had been distilled off, the N₂ content of the steel and electrolytic deposit was determined colorimetrically. The method used for determining the Nb and W in the carbides was based on the fact that Na₂WO₄ dissolves when heavy concentrations of Na⁺ are present in the solution, whereas Na₃NbO₄ remains insoluble. The Nb was determined gravimetrically, the W by colorimetry. The method used for separating the Ti and Nb carbides was based on the solubility of the Ti carbide in (1:1) HCl in the presence of Br, the Nb carbide remaining stable. The procedures used are described in detail, and test results are given.

P. K.

1. Electrochemical method

Card 2/2

18.1250

SOV/20-130-2-20/69

5(2)

AUTHORS:

Golubtsova, R. B. Rude, L. A.

TITLE:

Investigation of Metallic Compounds in Multicomponent
Nickel Alloys Containing Niobium

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 2.
pp 318 - 321 (USSR)

ABSTRACT:

In the present paper, the niobium-containing excess phases in the system Ni-Cr-W-Mo-Nb-Ti-Al are investigated with respect to their composition and structure with different Ni-amounts in the alloys. The authors' investigations showed that solid solutions were formed on the basis of the compound Ni_3Nb . Cast alloys (prepared by L. I. Pryakhina) were investigated after heating them up to 1200° , keeping them at this temperature for 200 h, and cooling them in air. Figure 1 shows the microstructure of these alloys. Considering the high oxidizability of the anodic precipitate, electrode potentials of Ni_3Nb and the solid γ -solution were measured in various electrolytes (Fig 2). and the optimum electrolyte was chosen in this way. Table 1 shows the isolation of the Ni_3Nb -phase in various electrolytes at room

Card 1/3

Investigation of Metallic Compounds in Multicomponent SOV/20-130-2-20/69
Nickel Alloys Containing Niobium

temperature. By microchemical analysis of the anodic precipitate from different electrolytes the same composition of Ni_3Nb near the stoichiometric one was proved in all cases. Table 4 presents the results of the influence of current density on yield and composition of the Ni_3Nb -phase

The authors assume that the yield of the phase is reduced at a higher current density due to the heating of the electrolyte. Oxidative reactions caused by the anion discharge did not take place. The shape of the polarization curve (Fig 3) proves that this process occurs without a drop in the potential values. Table 5 shows that at -18° and 0° a metallic phase on Ni_3Nb -basis is separated (yield of the phase 16.30%). On cooling to -8° , both the Ni_3Nb -phase and the solid solution are passivated. This increases the yield of the phase. The said passivation is evidently due to the reduced activating effect of the Cl^- -ions on intense cooling. On the basis of the above results, the authors determined the optimum isolating process for the Ni_3Nb -phase. Table 2 and figure 4 show the results of the intermetallide and the X-ray structural analysis by means of the X-ray camera of

Card 2/3

57555

Investigation of Metallic Compounds in Multicomponent SOV/20-130-2-20/69
Nickel Alloys Containing Niobium

type GFTI-1. The phase separating from all alloys forms a solid solution on the basis of the metallic compound Ni_3Nb which has a rhombic crystal lattice. Considering the near values of atomic radii, it can be assumed that the Ni-atoms (1.24 Å) can be substituted by Cr-atoms (1.28 Å), and the Nb-atoms (1.47 Å) by W-atoms (1.41 Å) and Mo-atoms (1.40 Å). Therefore, the authors write down the formula for the compound developing in the alloy as follows: $(Ni, Cr)_3(Nb, W, Mo)$. Table 5 shows the distribution of the alloying elements between the solid γ -solution and the Ni_3Nb -phase on account of the analysis of the anodic precipitate and the electrolyte. The name of I. I. Kornilov is mentioned in the paper. There are 4 figures, 5 tables, and 2 Soviet references.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR
(Institute of Metallurgy imeni A. A. Baykov of the Academy of Sciences, USSR)
PRESENTED: August 14, 1959, by I. P. Bardin, Academician
SUBMITTED: July 20, 1959
Card 3/3

34476

S/O20/62/142/004/03/0
B106/B110

12.1250

AUTHORS: Golubtsova, R. B., and Nude, L. A.

TITLE: Study of isolation conditions of the metallic compound Ni₃A.
forming in multicomponent nickel alloys

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 4, 1962, 824 - 827

TEXT: Metallic compounds which can be isolated in the electrolytic dissolution of alloys of the system Ni-Cr-W-Mo-Al-Nb-Ti were studied. Chemical composition and conditions of heat-treatment of the alloys studied are given in Table 1. Five electrolytes used by different authors (Ref. 1: R. B. Golubtsova, L. A. Mashkovich, DAN, 106, no. 6 (1956); Ref. 2: N. F. Lashko, A. F. Likina et al., Sborn. tr. Tsentr. nauchno-issl. inst. tekhnologii i mashinostroyeniya, kn. 59, 1953; Ref. 3: N. I. Blok, A. I. Glazova et al., Zav. lab., 8, 901 (1954)) for isolating the δ' -phase from nickel-base alloys were tested on the alloy no. 1 in order to find conditions for the electrolytic dissolution of these alloys. These electrolytes had the following composition: 1 l CH₃OH, 35 g citric acid.

Card 1/6

S/020/62/142/004/015/022
B106/B110

Study of isolation conditions...

5 g $(\text{NH}_4)_2\text{SO}_4$, 15 ml HNO_3 (1.4); 1 l H_2O , 35 g citric acid, 5 g $(\text{NH}_4)_2\text{SO}_4$,
15 ml HNO_3 (1.4); 1 l H_2O , 10 g ammonium citrate, 100 g CuSO_4 , 10 ml H_2SO_4
(1.84); 1 l H_2O , 10 g ammonium citrate, 20 g CuSO_4 , 5 ml H_2SO_4 (1.84);
1 l H_2O , 9 g citric acid, 9 g $(\text{NH}_4)_2\text{SO}_4$. Chemical and X-ray structural

analysis of the powder that separates anodically in the electrolysis in
these electrolytes showed that it is in all cases a solid solution on the
basis of the chemical compound Ni_3Al in a quantity of $\sim 11.8\%$ of the alloy
anodically dissolved. The electrolyte with methanol proved to be the best
one, since no hydrolytic precipitation of niobic and tungstic acid takes place
therein. The anodic dissolution of the alloys studied takes place in this
electrolyte at anode potentials of +1.35 to +1.5 v. Under these conditions
also the phase Ni_3Al is precipitated quantitatively. The solid solution on

the basis Ni_3Al contains also other dissolved elements. Niobium-containing
alloys were anodically dissolved in an electrolyte provided for the isolation
tion of Ni_3Nb in order to find out whether other phases (e. g. Ni_3Nb) are
present besides Ni_3Al . In this case, the alloys dissolved at low anodic
Card 2/6

S/020/62/142/004/013/022
B106/B110

Study of isolation conditions...

Cr, W, Mo, Al, Nb, and Ti. Moreover, it was found that the metallic compound Ni_3Al is one of the phases of which the alloys studied are composed.

L. I. Pryakhina studied the mentioned alloys in order to establish the phase diagram. R. N. Rogova, Yu. G. Sorokina, V. A. Smirnova, and S. A. Yuganova are mentioned. There are 3 figures, 4 tables, and 5 Soviet references.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii Nauk SSSR (Institute of Metallurgy imeni A. A. Baykov of the Academy of Sciences USSR). Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya (Central Scientific Research Institute of Technology and Machine Building).

PRESENTED: September 16, 1961, by I. I. Chernyayev, Academician.

SUBMITTED: September

Card 4/6

Study of isolation conditions...

S/020/62/142/004/013/022
B106/B110

Table 4. Distribution of elements among solid solution and the $Ni_{12}Al$ phase
Legend: (I) Number of alloy; (II) phases of the studied alloys (III) content of elements, % by weight; (IV) solid solution; (V) phase; (VI) sum; * the nickel content of the alloy was calculated by completion to 100%.

№ сплава (I)	Составляющие фазы исследуемых сплавов (II)	Содержание элементов, вес. % (III)							Сумма (VI)
		Ni*	Cr	W	Mo	Nb	Ti	Al	
1	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	76,86	9,60	6,09	3,02	—	—	4,33	100,00
2	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	8,60	0,55	1,25	0,27	—	—	1,30	11,97
3	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	68,36	9,05	4,84	2,75	—	—	3,03	88,03
4	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	74,64	9,50	6,00	3,00	3,00	—	3,86	100,00
5	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	19,62	0,87	1,44	0,23	1,52	—	2,01	26,59
6	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	55,02	8,63	4,56	2,77	1,48	—	0,95	73,41
7	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	72,98	9,56	6,10	2,80	1,50	—	0,87	100,00
8	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	37,30	2,50	1,00	1,04	1,50	—	5,57	49,57
9	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	35,08	7,06	4,50	1,86	0,03	—	1,30	50,43
10	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	84,57	3,43	2,41	1,12	—	—	8,47	100,00
11	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	13,87	0,50	0,51	0,25	—	—	2,12	17,25
12	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	70,70	2,93	1,90	0,87	—	—	6,35	82,75
13	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	74,82	9,65	5,50	2,72	—	3,85	3,46	100,00
14	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	30,60	1,02	0,83	0,39	—	2,60	3,46	38,90
15	γ-Твердый раствор + фаза $Ni_{12}Al$ (IV) фаза $Ni_{12}Al$	44,22	8,63	4,67	2,33	—	1,25	0,0	61,10

NUDEL, A.

NUDEL, A.

Celebrate the holiday in a fitting manner. Prom.koop. no.10:3
0 '57. (MIRA 10:12)

1.Zamestitel' predsedatelya pravleniya Gortekstil' promsoyuza,
Moskva.

(Moscow--Textile industry)

IVAKHOV, A.; MUDEL', I.

Chamber dryer for fire departments. Pozh. delo 6 no. 11:29 N '60.
(MIRA 13:12)

1. Nachal'nik Otdela pozharney okhrany Vinnitskogo oblispolkoma
(for Ivakhov). 2. Starshiy inspektor Otdela pozharney okhrany
Vinnitskogo oblispolkoma (for Mudel').
(Fire departments--Equipment and supplies)

NUDEL', I. (Vinnitsa)

No fires in our district. Pozh.delo 8 no.4:29 Ap '62.

(MIRA 15:4)

(Vinnitsa Province--Farm buildings--Fires and fire prevention)

NUDEL', M. B.

"Oxygen Unit for Group Administration of Oxygen," Voenno-Med. Zhur., No.1,
pp. 74-76, 1955

NUDEL'. M.B.

Peculiarities in the development and course of brain concussion.
Vop. psikh. i nevr. no.3:34-38 '58. (MIRA 12:3)

1. Iz kliniki nervnykh bolezney Voenno-meditsinskoy ordena Lenina
akademii im. S.M. Kirova.
(BRAIN--CONCUSSION)

NUDEL', S.Ya., vrach

~~Prevention of dermatitis in workers of a Moscow tire plant. Fig. 1~~
san. 21 no.9:74-75 S '56. (MLBA 9:10)

1. Iz Moskovskogo shinnogo zavoda.
(DERMATITIS, CONTACT, prev. and control
in workers of tire factory)

NUDEL', S.Ya.

Mondor's disease. Sov. med. 27 no.1:132-135 Ja '64.

1. Moskovskaya gorodskaya klinicheskaya bol'nitsa No.52 (MIRA 17:12)
(glavnyy vrach P.S. Petrushko).

Nudel'man, A. A. On the application of completely and absolutely monotone sequences to the problem of moments. Uspehi Matem. Nauk (N.S.) 8, no. 6(58), 119-124 (1953). (Russian)

The author gives an elementary discussion of the uniqueness of a solution of the moment problem on $(1, \infty)$,

$$\mu_n = \int_1^\infty t^n d\sigma(t), \quad n=0, 1, 2, \dots; \quad d\sigma(t) \geq 0.$$

His method depends on a preliminary investigation of conditions under which a completely monotonic sequence $\{c_n\}_{n=0}^\infty$ can be extended to a completely monotonic sequence $\{c_n\}_{n=-\infty}^\infty$.
R. P. Boas, Jr. (Evanston, Ill.).

AUTHORS: Nudel'man, A.A., and Shvartsman, P.A. SOV/42-13-6-13/33

TITLE: On the Spectrum of the Product of Unitary Matrices (O spektre proizvedeniya unitarnykh matrits)

PERIODICAL: Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr 6, pp 111-117 (USSR)

ABSTRACT: The authors investigate the eigenvalues $\lambda_k = e^{i\omega_k}$, $0 \leq \omega_k < 2\pi$, $\omega_1 \geq \omega_2 \geq \dots \geq \omega_n$ of the matrices $C = AB$, where A and B are arbitrary unitary matrices with given eigenvalues:

$$A \sim \lambda_k = e^{i\varphi_k}, \quad 0 \leq \varphi_k < 2\pi, \quad \varphi_1 \geq \varphi_2 \geq \dots \geq \varphi_n$$

$$B \sim \mu_k = e^{i\psi_k}, \quad 0 \leq \psi_k < 2\pi, \quad \psi_1 \geq \psi_2 \geq \dots \geq \psi_n.$$

Under the assumption $(\varphi_1 + \psi_1) - (\varphi_n + \psi_n) < 2\pi$ it holds: The set of the points $(\omega_1, \omega_2, \dots, \omega_n)$ is contained in the intersection L of minimal closed convex bodies which contain the points

$(\varphi_1 + \psi_{k_1}, \varphi_2 + \psi_{k_2}, \dots, \varphi_n + \psi_{k_n})$ (first body)

$(\psi_1 + \varphi_{k_1}, \psi_2 + \varphi_{k_2}, \dots, \psi_n + \varphi_{k_n})$ (second body),

Card 1/2

On the Spectrum of the Product of Unitary Matrices SOV/42-13-6-13/33

where $k_1, k_2, \dots, k_n$ are all possible permutations of the indices $1, 2, \dots, n$. Furthermore the authors introduce local coordinates of the matrices C and the derivatives of the ω_k with respect to these coordinates are calculated. The authors thank M.G.Kreyn for the assistance. There are 2 Soviet references.

SUBMITTED: March 20, 1957

Card 2/2

NUDEL'MAN, A.A.

Minimum-problem of the Korkin - Zolotarev type. Uch. zap.
KHGU 135:89-92 '64. (MIRA 17:10)

16(1)

AUTHOR: Nudel'man, A.A.

SOV/20-125-4-13/72

TITLE: On a Generalization of Some Results of P.L.Chebyshev and A.A. Markov (Ob obobshchenii nekotorykh rezul'tatov P.L.Chebysheva i A.A.Markova)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 4, pp 740-742 (USSR)

ABSTRACT: The present paper is written under the leading of M.G.Kreyn. Basing on the results of M.G.Kreyn [Ref 1] the author generalizes some older results of Chebyshev and Markov to the generalized moments $s_k = \int_a^b u_k(t) d\sigma(t)$. Kreyn has shown that the points $(s_0, s_1, \dots, s_n)$ of the R_{n+1} which admit the representation $s_k = \int_a^b u_k(t) d\sigma(t)$, fill up the smallest closed conic set K containing the curve $x_k = u_k(t)$, $a \leq t \leq b$. The author proves: If

Card 1/2

On a Generalization of Some Results of P.L.Chebyshev SOV/20-125-4-13/74
and A.A.Markov

$A(a_0, a_1, \dots, a_n)$ and $B(b_0, b_1, \dots, b_n)$, where $(-1)^{k+1} a_k \leq (-1)^{k+1} b_k$, belong to the cone K , then to K there belong all points S of the parallelepiped M : $(-1)^{k+1} a_k \leq (-1)^{k+1} s_k \leq (-1)^{k+1} b_k$. Furthermore the behavior of the mass points of the fundamental representative of the sequence $\{s_k\}_0^n$ for an enlargement of $(-1)^{k+1} s_k$ is described in a table (compare [Ref 1]). In a theorem the author gives $\sigma(t)$ for which $\int_a^b \omega(t) d\sigma(t)$ under certain conditions reaches extremal values. As a conclusion there results an assertion on absolutely monotone functions of S.N.Bernshteyn. There are 6 Soviet references.

ASSOCIATION: Odesskiy inzhenerno-stroitel'nyy institut (Odessa Civil Engineering Institute)

PRESENTED: December 20, 1958, by S.N.Bernshteyn, Academician

SUBMITTED: October 25, 1958

Card 2/2

S/020/60/131/06/007/071

AUTHOR: Nudel'man, A. A.

TITLE: Limit Values of Integrals $\int_a^b \Omega(t) d\sigma(t)$ Under A.A. Markov's Conditions

PERIODICAL: Doklady Akademii nauk SSSR. 1960, Vol. 131, No. 6, pp. 1253-1256

TEXT: The author starts from the investigation (Ref.1) of M.G. Kreyn to whom he thanks for the interest in the present paper and whose notions and notations he uses without explanation. He considers canonical representations of the sequence $\{s_k\}_0^w$, with the index $n + 2$ and the limit values of the integrals

$$I^+ = \int_a^{\xi+c} \Omega(t) d\sigma(t), \quad I^- = \int_a^{\xi-0} \Omega(t) d\sigma(t)$$

under the assumption

$$(1) \quad s_k = \int_a^b \omega_k(t) d\sigma(t) \quad ; \quad k = 0, 1, \dots, n, \quad d\sigma(t) \geq 0,$$

where the point $S \equiv (s_0, s_1, \dots, s_n)$ can be variable in a certain

Card 1/2

§10

S/020/60/131/06/007/071

Limit Values of Integrals $\int_a^b \varphi(t) \psi(t) dt$ Under A.A.Markov's Conditions

parallelepiped which lies inside of the cone K.

The author gives 2 theorems. He mentions P. L. Chebyshev and A. A. Markov.

There are 4 Soviet references.

ASSOCIATION: Odesskiy inzhenerno - stroitel'nyy institut (Odessa Civil Engineer Institute)

PRESENTED: December 22, 1959, by S. N. Bernshteyn, Academician

SUBMITTED: December 22, 1959

Card 2/2

NUDEL'MAN, A. A., Cand. Phys-Math. Sci. (diss) "On One Inference
From Investigations of P. L. Chbyshev and A. A. Markov on the
Theory of Limiting Magnitudes of Integrals." Khar'kov, 1961, 12
pp. (Khar'kov State Univ.) KL Supp 12-61, 252-3).

NUDEL'MAN, A.A.

Special representations of generalized moments. Dop. AN USSR no.5:
563-566 '65. (MIRA 18:5)

1. Odesskiy inzhenerno-stroitel'nyy institut.

NUDEL'MAN, A.A.

Functions whose integrals satisfy Chebyshev-Markov inequalities.
Dop. AN URSR no.6:691-695 '65. (MIRA 18:7)

1. Novokakhovskiy obshchetekhnicheskoy fakul'tet Odesskogo
inzhenerno-stroitel'nogo instituta.

ANDREICHEV, Anatoliy Nikolayevich; MUDEL'MAN, Abram Borisovich;
DUKHOVLIN, D.P., inzh., retsenzent; PIONOV, N.I., inzh.,
retsenzent; VEKSER, A.A., red.; SHPAK, Ye.G., tekhn.red.

[Mining and processing of potassium salts] Dobycha i pere-
rabotka kaliinykh solei. Moskva, Gos.nauchno-tekhn.izd-vo
khim.lit-ry, 1960. 450 p. (MIRA 13:12)
(Potassium salts)

NUDEL'MAN, A.G. (Omak)

Student's work in the preparation of visual aids. Mat.v shkole
no.1:37-40 Ja-F '60. (MIRA 13:5)
(Mathematics--Study and teaching)
(Visual aids)

NUDEL'MAN, A.G. (Omak)

How we assimilate and develop progressive experience. Mat. v shkole
no.2:45-46 Mr-Apr '63. (MIRA 16:4)
(Mathematics—Study and teaching)

NUDEL'MAN, A.I., inzh.; FILATOV, V.P., inzh. [deceased]

Automation of a continuous scavenging process using a
salinometer transducer. Elek. sta. 35 no.2:20-23 F '64.
(MIRA 17:6)

L 51314-65

ACCESSION NR: AP5008041

S/0143/65/000/002/0032/0039
537.212.001.24

AUTHOR: Nudel'man, A. I. (Engineer)

TITLE: Calculating the field of a two-layer cylinder with grounded base

SOURCE: IVUZ, Energetika, no. 2, 1965, 32-39

TOPIC TAGS: electric field, electric field of cylinder, electric field calculation

ABSTRACT: A liquid-filled cylindrical dielectric cup having an outer cylindrical metal coating (one electrode) and a metal bottom (another electrode) is considered. Such an arrangement is used for designing electrolytic cells intended for contactless measurement of the conductivity of liquids. On the basis of a differential Laplace equation for the potential inside the liquid, formulas are developed for that potential (10) and for admittance (13) of the liquid. The latter formula was experimentally verified. Orig. art. has: 2 figures, 41 formulas, and 1 table.

Card 1/2

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2/2

NUDEL'MAN, A.I.

Analyzing the sensitivity of a pickup used in noncontact electric measurements. Izv.tekh. no.6:47-49 Je '65.

(MIRA 18:8)

SOV/169-59-5-4291

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 5, p 5 (USSR)

AUTHOR: Nudel'man, A.V.

TITLE: Into the Region of the Southern Pole of Relative Inaccessibility¹²

PERIODICAL: Mezhdunar. geofiz. god. Inform. byul., 1958, Nr 5, pp 86 - 90

ABSTRACT: The author describes the sledge-tractor train, which was organized by the third continental Antarctic expedition of the AS USSR into the region of the southern pole of relative inaccessibility. The terminal point of the sledge tractor train, the Station "Sovetskaya" is located at a distance of approximately 1,420 km from the observatory "Mirnyy" at a height of 3,700 m above the sea-level. ^v The station carries out regular meteorologic, aerologic, actinometric, and glaciologic observations according to the program of IGY.

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Card 1/1

NUDEL'MAN, A.

Calendar of an Antarctic expedition. Mor. flot 18 no.4:22-23
Ap '58. (MIRA 12:12)

1. Starshiy inzhener otдела nauki i gidrografii Gidrograficheskogo
upravleniya Glavstvymorputi.
(Antarctic regions)

NUDEL'MAN, A.

Calendar of the Antarctic expedition; Camp Pioneer, first station in the interior of the continent. Mor. flot 18 no.5:24 My '58.
(MIRA 11:6)

1. Starshiy inzhener otdela nauki i godrografii Gidrograficheskogo upravleniya Glavsevmorputi.
(Antarctic regions)

NUDEL'MAN, A.V.

[Soviet expeditions to the Antarctic, 1955-1959] Sovetskie
ekspeditsii Antarktiki, 1955-1959 gg. Moskva, Izd-vo Akad.
nauk SSSR, 1959. 128 p. (MIRA 13:2)
(Antarctic regions--Discovery and exploration)

NUDEL'MAN, A.V.

Special Committee for Antarctic research. Vezhdunar. geofiz. god.
no.6:69-73 '59. (MIRA 12:11)
(Antarctic regions)

NUDEL'MAN, Ayzik Vol'fovich; SILKIN, B.I., otv.red.; NOVICHKOVA, N.D.,
tekhn.red.

[Soviet expeditions to the Antarctic, 1958-1960] Sovetskie
ekspeditsii v Antarktika, 1958-1960 gg. Moskva, Izd-vo Akad.
nauk SSSR, 1960. 105 p. (MIRA 14:2)
(Antarctic regions--Russian exploration)

NUDEL'MAN, Ayzik Vol'fovich; SILKIN, B.I., otv. red.; YEGOROVA,
N.F., tekhn. red.

[Soviet expeditions to the Antarctica, 1959-1961] Sovetskie
ekspeditsii v Antarkitiku, 1959-1961 gg. Otv. red. B.I. Silkin.
Moskva, Izd-vo Akad. nauk SSSR, 1962. 149 p. (MIRA 15:12)
(Antarctic regions--Russian exploration)

L 08511-67 EWT(1) GW

ACC NR: AM 6019456

Monograph

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Nudelman, Ayzik Vol'fovich

Soviet Antarctic expeditions, 1961-1963 (Sovetskiye ekspeditsii v Antarktiku, 1961-1963) Moscow, Izd-vo "Nauka", 1965, 271 p. illus., biblio. (At head of title: Mazhdovodomsvennyy geofizicheskiy komitet pri Prezidiume Akademii nauk SSSR) Added t. p. in English. 5, 900 copies printed.

TOPIC TAGS: geographic expedition, research ship, Antarctic climate, weather station, mapping

PURPOSE AND COVERAGE: This book describes mainly the activities of the Sixth (wintering period), the Seventh and the initial stage (period of the Antarctic summer, 1962-1963) of the Eighth Soviet Antarctic Expeditions. It is a continuation of the books by A. V. Nudelman, "Soviet Antarctic Expedition, 1959-61". This book gives a chronological account of the voyage of Soviet expedition ships in South Pole waters, the work of Antarctic stations, and the flights and sledge-tractor trips inland on the continent during 1961-63. Also, a description is given of scientific research made by the expeditions, and major scientific chapter describing the compilation of the "Atlas of the Antarctica".

Card 1/2

L 08511-67

ACC No. AM5019456

TABLE OF CONTENTS (abridged):

From the editor -- 3
The Sixth Soviet Antarctic Expedition (1960-1962) -- 5
The Seventh Soviet Antarctic Expedition (1961-1963) -- 32
The Eighth Soviet Antarctic Expedition (1962-1964) -- 80
Tractor-sledge trips of inland areas of Eastern Antarctica -- 15
Operation of the Antarctic stations -- 140
Atlas of the Antarctic -- 206
International cooperation in the study of Antarctica -- 219
Abstract -- 240
References -- 242
Appendices -- 245

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NUDEL'MAN, B.I.

Mechanism of the effect of mineralizers on the rate of dissociation of CaCO_3 and the combination of CaO with calcium silicates and calcium aluminates at 700°C . Usb.khim.zhur. no.4: 69-75 '59. (MIRA 13:1)

1. Opytnyy zavod promstroymaterialov Tashsownarkhona.
(Lime) (Calcium carbonate) (Calcium aluminate)
(Calcium silicate)

NUDEL'MAN, B.I., inzh.

Using loesslike clayey soils in making ceramic products
fired at low temperatures. Stroim. 5 no.8:36-37
Ag '59. (MIRA 12:12)
(Tiles) (Brickmaking)